



Matthew Rodriguez
Secretary for
Environmental Protection



Department of Toxic Substances Control

Deborah O. Raphael, Director
8800 Cal Center Drive
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Edmund G. Brown Jr.
Governor

March 16, 2012

Mr. Raymond Chavira
Environmental Scientist/Remedial Project Manager
U. S. Environmental Protection Agency, Region 9
Superfund Division
75 Hawthorne Street
Mail Code: SFD-7-3
San Francisco, California 94105

COMMENTS ON SITE BACKGROUND AND CONCEPTUAL SITE MODEL, FORMER TRW BENCHMARK TECHNOLOGIES SITE, CITY OF INDUSTRY, CALIFORNIA

Dear Mr. Chavira:

The Department of Toxic Substances Control (DTSC) and the United States Environmental Protection Agency (USEPA) received the above mentioned submittal electronically on February 22, 2012, prepared by Orion Environmental Inc. and submitted on behalf of Northrop Grumman Systems Corporation. The Site background and Conceptual Site Model (CSM) information was requested by USEPA during the January 31, 2012 meeting at CDM-Smith. USEPA provided comments on the CSM and Site Background to Orion Environmental and stakeholders in an email dated February 29, 2012, with plans for additional comments as the CSM is developed and refined.

The former TRW Benchmark manufacturing facility (Benchmark) located at 200 South Turnbull Canyon Road encompassed an area of approximately 970 feet long and approximately 400 feet wide. Activities at Benchmark started in the early 1950s with the manufacturing of circuit boards and continued into the late 1980's. Benchmark manufacturing processes used industrial chemicals; toluene, xylene, trichloroethene (TCE), trichloroethane (TCA), methyl chloride, methyl ethyl, ketone (MEK), acetone, and isopropyl alcohol.

Benchmark chemicals of concern include TCE, tetrachloroethene (PCE), isomers of TCA, isomers of dichloroethene (DCE) and dichloroethane (DCA), methyl chloride, perchlorate, 1,4-dioxane, and hexavalent chromium.

Soil and groundwater remedial activities began in 1990 and included; soil excavation, groundwater pump and treat using air stripping, soil vapor extraction using both vapor phase granular activated carbon and advanced oxidation. Active remediation at Benchmark continued until 2006 when the GW pump and treat activities were terminated.

DTSC has reviewed the submittal and have the following comments:

General Comments

- 1.) The memorandum contains an extremely brief overview of the Site's background, historical remediation activities, chemicals of concern, and CSM. Specifically, little information if any is presented on the site characteristics, physical setting, hydrogeology, historical chemical usage and locations, mechanisms of chemical release, contaminant migration pathways, fate and transport of contaminants, including human exposure pathways.

Vapor intrusion pathways may be present for several known residences including businesses with scores of workers. Complete exposure pathways for these individuals may exist due to their close proximity to the "core" of the persistent Puente Valley groundwater source, residence/business construction techniques (concrete slab on grade), low depth to groundwater at these locations, and elevated concentrations of volatile organic compounds in both soil and groundwater. Down-gradient residences north of Nelson Avenue should also be evaluated as older contaminant mass from Benchmark has migrated beneath these residential areas and further northward.

- 2.) Following USEPA CSM guidance, a CSM diagram should also be developed for Benchmark. The CSM diagram is a product of the CSM that represents linkages to contaminant sources, release and transport mechanisms, exposure pathways and routes, including receptors. The CSM diagram should be updated as the CSM is refined with the collection of new analytical data. DTSC has attached an example of a CSM diagram used at one of its Sites under Order to help facilitate the development at Benchmark.

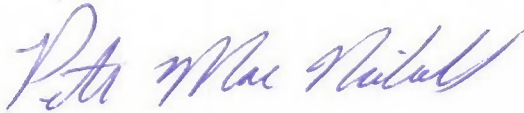
Attached are DTSC's Engineering and Special Projects Office specific comments on the Site Background and CSM Memorandum. DTSC recommends that USEPA review and implement accordingly the above mentioned criteria into the development of an

Mr. Raymond Chavira
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agreeable CSM for all Stakeholders and to support Benchmark's Data Quality Objectives as part of the Unilateral Administrative Order.

If you have questions with this letter, attachment figure or DTSC's Engineering Office letter, please feel free to contact me at (916)255-3713 or email pmacnich@dtsc.ca.gov.

Sincerely,



Peter MacNicholl, P.E.
Remedial Project Manager
Cleanup Program – Sacramento Office

Attachments

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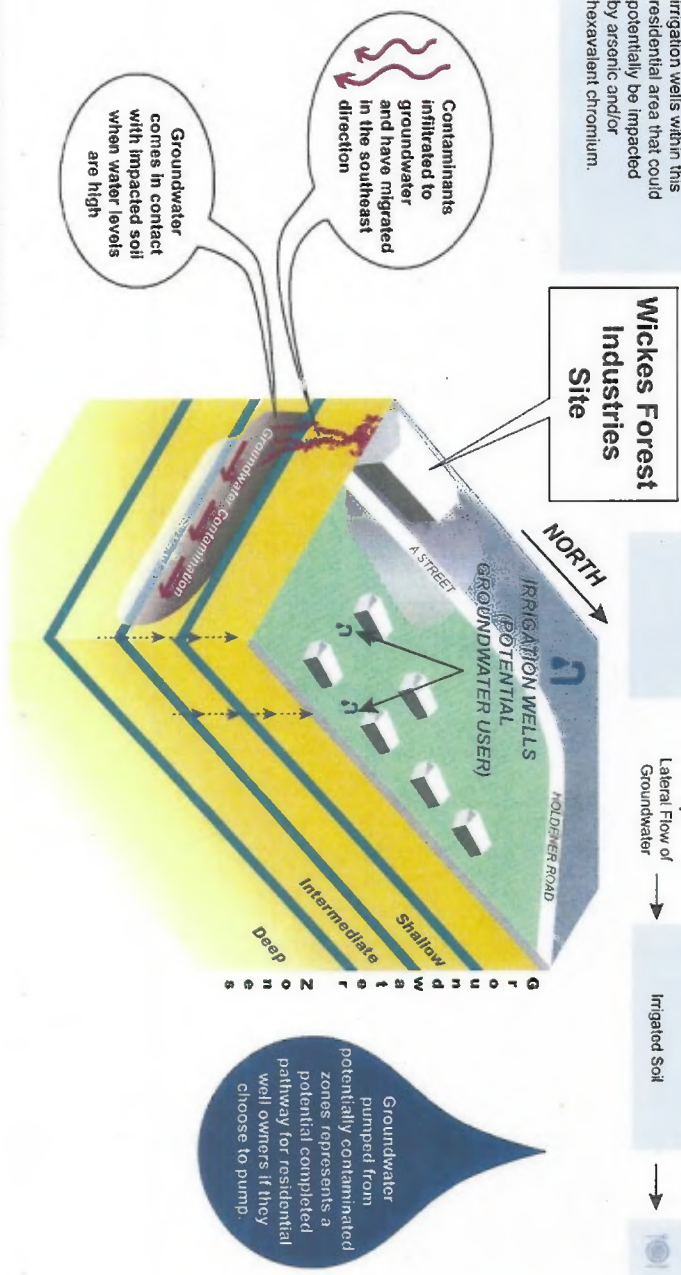
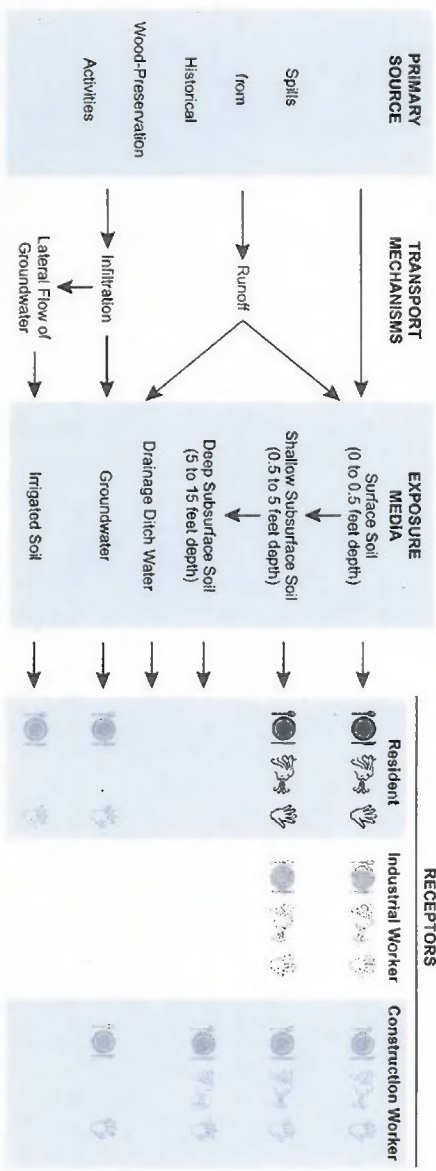
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cc: Mr. Don Indermill
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Mr. Jeffrey Hu
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SITE HISTORY
 The Wickes Forest Industries site was operated as a lumber treatment facility from 1972 to 1982. Wood preservative used at the facility was released to underlying soil and groundwater. This wood preservative contained toxic metals arsenic and hexavalent chromium. These metals have contaminated the shallow, clayey aquifer with concentrations above MCLs. The groundwater plume extends toward the southeast and the residential area east of A Street. There are several domestic irrigation wells within this residential area that could potentially be impacted by arsenic and/or hexavalent chromium.

HUMAN EXPOSURE PATHWAYS



Groundwater pumped from potentially contaminated zones represents a potential complete pathway for residential well owners if they choose to pump.

KEY

- = Ingestion
- = Inhalation
- = Contact
- BLACK SYMBOL**
 indicates a complete pathway for exposure
- GRAY SYMBOL**
 indicates a potential complete pathway for exposure
- NO SYMBOL**
 indicates an incomplete or inconsequential exposure pathway

Figure 3-5.
 Conceptual Site Model
 Wickes Forest Industries
 Elmirra, California



Matt Rodríguez
Secretary for
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Department of Toxic Substances Control

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MEMORANDUM

TO: Peter MacNicholl, P.E.
Hazardous Substances Engineer
Brownfields and Environmental Restoration Program
Cal Center Office

VIA: Rizgar Ghazi, P.E., Unit Chief
Engineering and Special Projects Office

FROM: Bill Beckman, P.E.
Hazardous Substances Engineer
Engineering and Special Projects Office

DATE: March 7, 2012

SUBJECT: SITE BACKGROUND AND CONCEPTUAL SITE MODEL, FORMER TRW
BECNCHMARK SITE, CITY OF INDUSTRY, CALIFORNIA
(FEBRUARY 21, 2012)

DOCUMENT REVIEWED

Site Background and Conceptual Site Model, Former TRW Becnchmark Site, City of Industry, California (dated February 21, 2012) (Memorandum). Prepared by Orion Environmental Inc. US EPA.

INTRODUCTION

The Benchmark property is located at 200 South Turnbull Canyon Road in the City of Industry and is associated with the Puente Valley Operable Unit (PVOU). The property is approximately 970 feet long and 400 feet wide. The site has a documented history of industrial chemical use dating back to the 1950s including the on-site use of toluene, xylene, trichloroethene (TCE), trichloroethane (TCA), methylene chloride, methyl ethyl ketone (MEK), acetone, and isopropyl alcohol.

Chemicals identified as present on or near the Benchmarck property include TCE, perchloroethylene (PCE), isomers of TCA, isomers of dichloroethene (DCE) and dichloroethane (DCA), methylene chloride, 1,4-dioxane, and hexavalent chromium.

Soil and groundwater remediation activities began in 1990 and have included soil excavation, air stripping, vapor-phase granular activated carbon, and advanced oxidation.

COMMENTS AND RECOMMENDATIONS

The Engineering and Special Projects Office has reviewed the above referenced Memorandum and has the following comments and recommendations. If you have any questions regarding this memorandum, please contact William Beckman at (916) 255-3668 or via email at wbeckman@dtsc.ca.gov.

General Comments

1. The Memorandum contains an extremely brief overview of site's background, historical investigations and remediation activities, chemicals of concern, and conceptual site model. As such, the Memorandum is usable only as in introductory document.
2. The Memorandum should be expanded with sufficient detail to
 - a. document the chronology of all investigation and remediation activities,
 - b. reference all relevant historical documents (and preferably make available electronic copies),
 - c. completely describe the sites physical characteristics,
 - d. more clearly chronicle the known use of on-site chemicals, sources of contamination, links to known soil and groundwater contamination, and possible mechanisms of chemical release and fate and transport,
 - e. provide a complete list of all contaminants of concern (including all VOCs),
 - f. completely identify the known distribution of contaminates in soil and groundwater, discuss the temporal changes observed in contaminant distributions during the site's history, and discuss the adequacy or lack of existing contaminant distribution data,
 - g. identify potential human and environmental receptors and discuss potential exposure pathways, and
 - h. discuss the potential risk for vapor intrusion in buildings on or near the Benchmark property.